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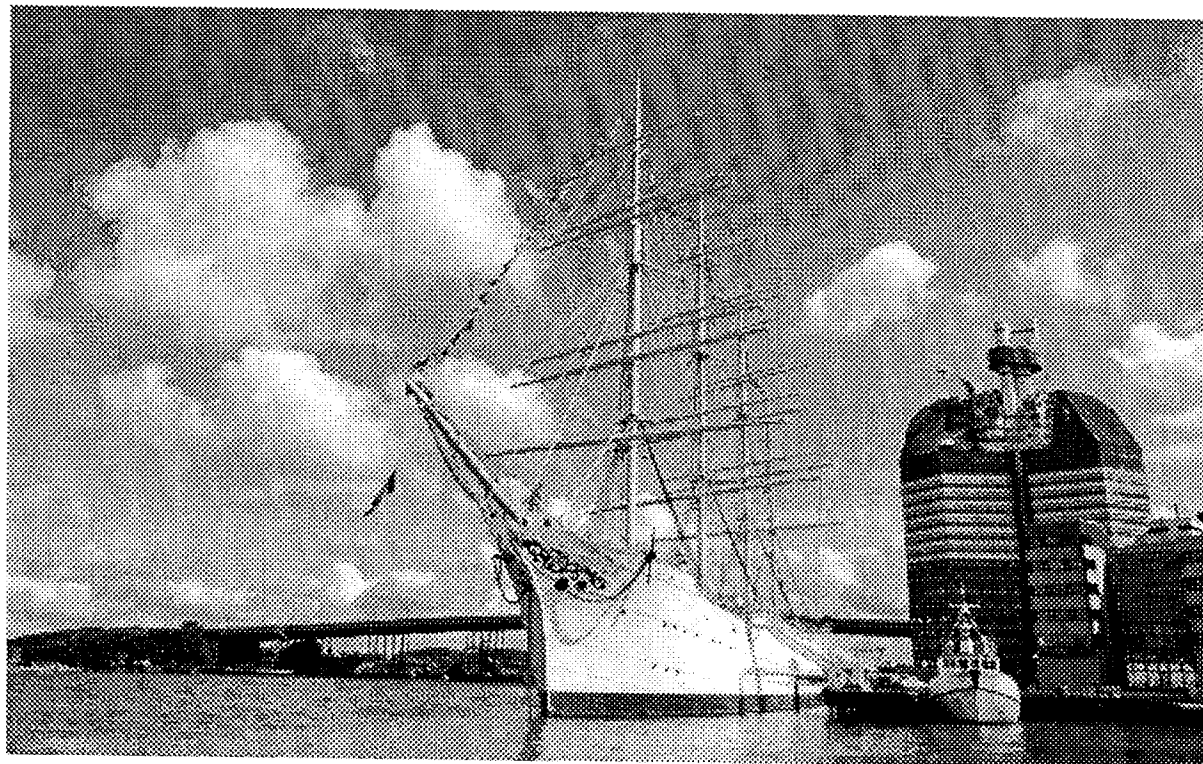
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HIGH LIPOPROTEIN (A) IN CHILDREN OF PATIENTS WITH PREMATURE CORONARY HEART DISEASE. RELATION TO OWN AND PARENTAL RISK FACTORS

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Purpose: To elucidate associations between high level of lipoprotein(a) [Lp(a)] in children of patients with premature (onset < 55 years, men; < 60 years, women) coronary heart disease (PCHD) with their own and parental characteristics.

Methods: We examined members of 133 families: 122 probands, their 95 consorts, 177 children aged 5-34 years. Characteristics studied included demographics, standard risk factors (RF), apoB, apoA1, fibrinogen, plasminogen activator inhibitor-1, plasminogen, alpha-2 antiplasmin, antithrombin-III, protein-C, serum glucose, insulin, homeostasis model assessment of insulin resistance, glucose tolerance, presence of diabetes, atherogenic dyslipidemia (high TG + low HDL-C) (ADLP), metabolic syndrome. High Lp(a) was defined as ≥ 30 mg/dl. Predictors were selected by sex, age adjusted logistic regression (inivariate with subsequent multivariate analysis). Associations were assessed separately in younger and adult children.

Results: Lp(a) was high in 21/83 children aged 5-17 years. Characteristics independently associated with high Lp(a) were apoB (OR 1.03, $p=0.025$), plasminogen (1.03, $p=0.027$) of children; high Lp(a) (12.3, $p=0.0007$), high vs non-high education (5.59, $p=0.017$), aDLP (0.16, $p=0.019$) of proband; high Lp(a) (8.92, $p=0.0044$), apoB (1.03, $p=0.047$) of consort.

Lp(a) was high in 25/94 children aged 18-34 years. Its independent predictors were own LDL-C (1.71, $p=0.019$); high Lp(a) (26.9, $p=0.0001$), aDLP (0.13, $p=0.030$) of proband; high Lp(a) (13.6, $p=0.0033$), LDL-C (3.38, $p=0.014$) of consort.

Conclusion: High Lp(a) in children of PCHD patients was associated with elevated Lp(a) of both parents. Some other predictors were plausible, while inverse association with parental ADLP required confirmation, and proband's higher education possibly reflected some unaccounted factors.